

FIG. 1

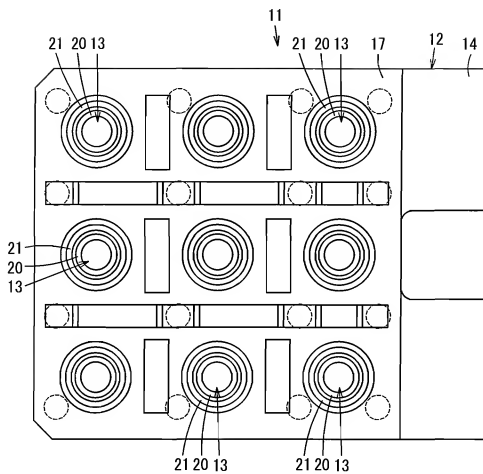


FIG. 2

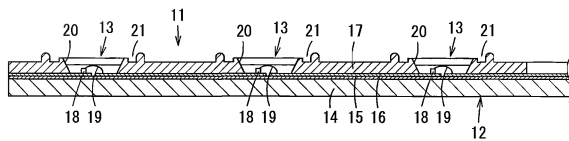


FIG. 3

ADDED AMOUNT OF DIFFUSING AGENT (mass%)	0	1	3	5	10	15
LIGHT FLUX (%)	100	100	100	100	90	80

FIG. 4

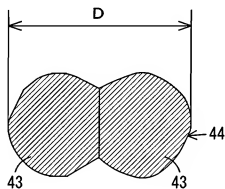


FIG. 5

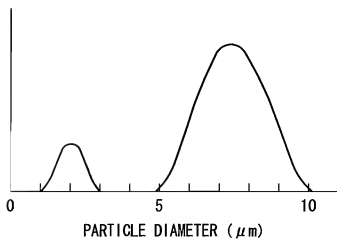


FIG. 6

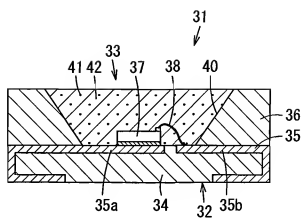


FIG. 7

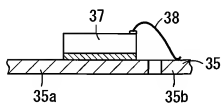


FIG. 8

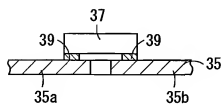


FIG. 9

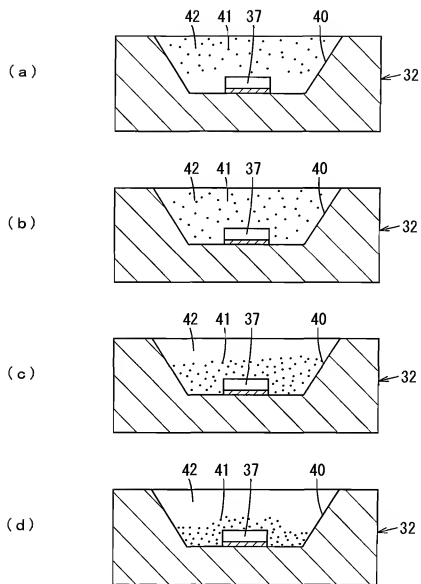


FIG. 10

	PHOSPHOR PREPARATION CONDITIONS		PHOSPHOR PARTICLES		LIGHT EMITTING DEVICE EVALUATION RESULTS		
	SINTERING CONDITIONS (TEMPERATURE × TIME)	PULVERIZATION TIME	STATE OF THE PARTICLES	AVERAGE PARTICLE DIAMETER D50 (μm)	LUMINOUS EFFICIENCY (RELATIVE VALUE)	COATING PROPERTY	DISPERSION PROPERTY
EXAMPLE 1	1400°C × 3h	SHORT	SECONDARY PARTICLES	7.5	1.20	○	○
EXAMPLE 2	1350°C × 3h	SHORT	SECONDARY PARTICLES	5.7	1.10	○	○
EXAMPLE 3	1400°C × 4h	SHORT	SECONDARY PARTICLES	7.5	1.25	○	○
EXAMPLE 4	1350°C × 4h	SHORT	SECONDARY PARTICLES	5.7	1.15	○	○
COMPARATIVE EXAMPLE 1	1450°C × 3h	LONG	PRIMARY PARTICLES	15	1.30	×	×
COMPARATIVE EXAMPLE 2	1400°C × 1h	LONG	PRIMARY PARTICLES	10	1.20	×	×
COMPARATIVE EXAMPLE 3	1350°C × 1h	LONG	PRIMARY PARTICLES	5	1.00	○	⊙

FIG. 11

	PARTICLE SIZE DISTRIBUTION OF PHOSPHOR		OPTIMAL BLENDING RATIO OF PHOSPHOR FOR 500K (mass%)	LUMINOUS EFFICIENCY OF LIGHT EMITTING DEVICE (RELATIVE VALUE)
	NUMBER OF PEAKS	PARTICLE DIAMETER RANGE		
EXAMPLE 5	2 PEAKS	$5 \sim 10 \mu\text{m}$ + $1 \sim 3 \mu\text{m}$	7	1.00
EXAMPLE 6	2 PEAKS	$7 \sim 15 \mu\text{m}$ + $1 \sim 3 \mu\text{m}$	8	1.10
COMPARATIVE EXAMPLE 4	1 PEAK	$5 \sim 10 \mu\text{m}$	10	1.00
COMPARATIVE EXAMPLE 5	1 PEAK	$7 \sim 15 \mu\text{m}$	11	1.10
COMPARATIVE EXAMPLE 6	1 PEAK	$1 \sim 7 \mu\text{m}$	8	0.80

FIG. 12

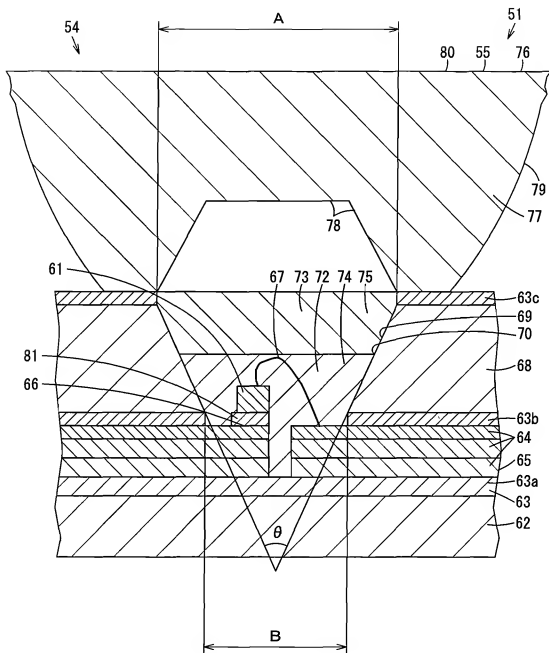


FIG. 13

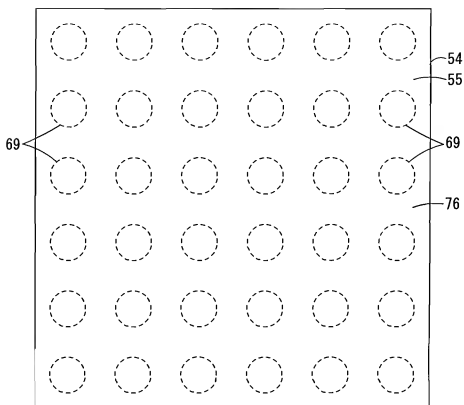


FIG. 14

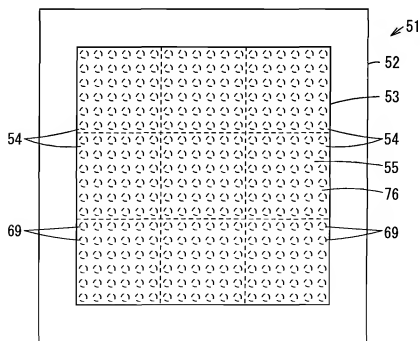


FIG. 15

ARRANGEMENT	COMBINATION EXAMPLE 1	COMBINATION EXAMPLE 2	COMBINATION EXAMPLE 3	COMBINATION EXAMPLE 4
LENS	ENGINEERING PLASTIC (100 TO 130°C)	ACRYLIC RESIN (120°C)	POLYPROPYLENE (110°C)	
ADHESIVE AGENT (THIRD INSULATING LAYER)	THERMOSETTING RESIN			
REFLECTOR	ENGINEERING PLASTIC (100 TO 130°C)	GLASS EPOXY RESIN	ALUMINUM	ALUMINUM NITRIDE
ADHESIVE AGENT (SECOND INSULATING LAYER)	THERMOSETTING RESIN			
CONDUCTIVE PATTERN	Au/Ni/Cu			
ADHESIVE AGENT (FIRST INSULATING LAYER)	THERMOSETTING RESIN			
SUBSTRATE	ALUMINUM	GLASS EPOXY RESIN	ALUMINUM NITRIDE	
LED	GaN-BASED LED			
DIE BONDING	Ag PASTE (150°C)	Au/Sn	Au	

FIG. 16